Oral clodronate as treatment of osteogenesis imperfecta

The benefits of treatment with intravenous pamidronate in osteogenesis imperfecta (OI) have recently been reported. These include reduced bone resorption, increased bone density, and improved clinical outcomes as judged by apparently lower fracture rates. We would like to report a single case of OI treated by the orally administered bisphosphonate, clodronate, with good effect.

A boy, whose mother was affected with clinically diagnosed type 1 osteogenesis imperfecta, was referred to our unit aged 13½ with a recent onset of severe back pain that had required hospital admission. He appeared of normal stature with blue sclerae and was able to walk independently. He had sustained four previous limb fractures; lateral radiographs of the thoracic and lumbar spine confirmed three vertebral wedge fractures. He was 158.9 cm tall (10th centile) and weighed 49 kg (25th centile). Lumbar spine bone mineral density scanning by dual x-ray absorptiometry (DXA, Hologic QDR-1000, Hologic, Bedford, MA) revealed a BMD of 0.396 g/cm² (Z score −5.22, comparing his value to the average young man). Fasting urinary hydroxyproline/creatinine ratio, an index of bone resorption, was 96.6.

With informed parental consent for “off label” usage, he was commenced on oral sodium clodronate (Bonefos, Leiras Oy, Turku, Finland) at a dose of 400 mg daily. Dietary intake of calcium and vitamin D was deemed to be above the estimated average requirement and dietary intake of calcium and vitamin D was obtained during a mass screening for CD in Sardinian schoolchildren, using both antenatal, serum and placental biopsy, and to a lesser extent, screening tests, as previously described. The sample included 20 children with CD on a gluten containing diet (16 girls, 4 boys, mean age 12.9 years, range 11.5–14.4 years) and 40 sex and age matched normal children (32 girls, 8 boys, mean age 13.0 years, range 11.2–14.8 years). All subjects were euthyroid. Prolactin was assayed in duplicate using a commercial immunoradiometric method; results were analysed by analysis of covariance.

Data are expressed as mean (SE). Prolactin levels were 4.62 (2.1) ng/ml in patients with CD and 5.90 (2.6) ng/ml in controls (no statistically significant difference). No correlation was found between prolactin concentrations and the degree of intestinal damage (Marsh criteria).

Our study did not confirm the increased prolactin concentrations in children with CD reported by Refeen and colleagues. Our population differed somewhat in that there was a higher mean age (12.9 v 11.3 years), a narrower age range (11.5–14.4 v 5–18 years), and a different girl:boy ratio (4:1 v 1:1). Furthermore, our study included three potential coeliac subjects (with antidiomysium antibodies positivity but normal intestinal biopsy) and 11 asymptomatic coeliac children. The hypothesis that the normal prolactin values observed in our study may be due at least in part to the different clinical characteristics of the population studied is plausible, but its validation requires a specifically designed study.
A Clinical Guide to Inherited Metabolic Diseases, 2nd edn

Edited by JTR Clarke UK: Cambridge University Press, 2002, £29.95, pp 306. ISBN 0521890764

Dr Clarke’s enthusiasm and erudition are evident on every page of this book, which is handily sized, and wonder of wonders, costs only £30.

Most of the chapters are written with a clinical-based approach, and the chapters on basic principles in understanding inherited metabolic disease, neonatal screening, hypoglycaemia, metabolic acidosis, storage diseases, and dysmorphism will be read with a sense of increasing revelation by just about any paediatrician, and those with a secure background in biochemistry and metabolic disease will pick up many nuggets of wisdom.

Why then, do I simply not recommend every paediatrician who sometimes deals with children suffering from mild to moderate eating problems, we need a better way to address these issues.

The Royal College of Psychiatrists has produced this small book for parents that should prove helpful, not only to parents but also to paediatricians and other health professionals. It provides information about the epidemiology of eating problems, and gives a useful classification, categorising eating difficulties into nine types, including persistence of eating inappropriate texture of food for age, food refusal, restrictive eating and selective eating. This allows the parent or professional to come to a more specific ‘diagnosis’, and also a sense of the anticipated course these difficulties are likely to take. In particular, it provides clear guidance for those conditions that are indicative of significant emotional or psychiatric conditions.

Giving clear indications to the parent as to when to worry is helpful, as it is likely to encourage a sense of proportion to the anxiety accompanying the more common eating difficulties. The book goes on to provide specific and sensible advice about the practical management for each of the different types of eating difficulty.

At the end of the day, one is left with the finding that for most parents, not surprisingly, reassurance is what is required. I felt, however, that this book could help us proffer the advice in a more substantive form than we do at present, and can give us an approach that is likely to help diffuse the anxiety which contributes to the perpetuation of stressful mealtimes. I suspect the book will prove to be of most value to health visitors, but selected reading could be of use to the paediatrician too.

This book is therefore of value for a problem that presents so frequently to the general paediatrician, but I must admit to some reservations. It could have been better written, and in particular was rather unnecessarily repetitive. It certainly would have benefited from paediatric review—I wondered who or what a community practitioner was, and gulped when I saw growth hormone mentioned in the section of treatment for restrictive eating! It was rather more concerning that children with disabilities got an occasional mention, implying that they merited the same sort of approach. It surely would have been better to emphasise that they require a different sort of understanding and input. But, despite these concerns, the book should prove useful as it provides a systematic approach to the child with eating difficulties, and some clear sensible practical advice to guide the parent in handling the problem.

M Rudolf

Childhood Headache


Headaches in children are a common problem—70% of school children have headaches at least once a year, with 25% suffering from recurrent headaches. This book is part of the Clinics in Developmental Medicine series, and provides a comprehensive overview of the subject. The book is divided into clear chapters, which makes it easy to dip into. It includes interesting sections on pain perception in children and neonates, as well as a good epidemiology section. Throughout the book there are summary tables of recently published studies. In the later chapters there are case histories, including patient descriptions, which break up the occasionally slightly long winded text. There is an extensive list of references at the end of each chapter.

I found the chapters on migraine enlightening, especially the theories on pathophysiology of migraine. The diagnostic criteria for migraine are easy to read and clear. There is an excellent overview on the psychological treatment of headaches, regardless of diagnostic type. Again, the evidence is summarised in clear tables. There is a practical section on managing abdominal migraine. Causes of headaches are divided into separate chapters for specific and rare causes, which was helpful when I used the text when on call.

The final chapter talks about setting up a headache clinic, including a discussion on diagnostic tests. There is a headache questionnaire for parents, which I would find very helpful. There is also advice on the role of the multidisciplinary team in management.

This book would be a valuable addition to a general paediatric department, both in outpatients and for reference when on call.

A Marjaria

CORRECTIONS

In the article by Nixon et al (Arch Dis Child 2002;87:306–11), Dr Claire Wainwright should have been included as an author. Dr Wainwright’s contribution was the establishment of the methodology and early patient recruitment and testing. Dr Wainwright moved from The Royal Children’s Hospital at the end of 1997, and was funded by The Royal...
The authors of the letter “Childhood SARS in Singapore” in the August issue (Arch Dis Child 2003;88:742) were written incorrectly. The authors’ names should be P Van Bever, C P P Hia, S C Quek.

In the acknowledgements for the leading article by Duke et al (Arch Dis Child 2003;88:563–5), Dr Diana Silimperi should have been acknowledged as part of the Paediatric Quality Care Group. The authors apologise for the error.

An error occurred in the paper by Riordan M, Rylance G, Berry K in the November issue. (Poisoning in children 1: General management. Arch Dis Child 2002;87:393–6). In Table 2, pupillary constriction associated with signs of increased sympathetic nervous system activity should read as mild pupillary dilation. Anticholinergic agents are likely to produce a more marked dilation. The authors apologise for the error.